Grade 8 Social Studies Module 1

United States History and Geography:
Colonialism, Development of a New Nation,
and the Constitution and Foundation of the
American Political System

Module Goal

The goal of this module is to provide information that will help educators increase their knowledge of grade-appropriate social studies concepts, knowledge, and skills to support effective planning or modification of their existing social studies instructional units for students with significant cognitive disabilities. The module includes important concepts, knowledge, and skills for the following instructional units:

- Colonialism (1600–1750),
- Development of a New Nation (1720–1787), and
- The Constitution and Foundation of the American Political System.

Module Objectives

The content module supports educators' planning and implementation of instructional units in social studies by:

- Developing an understanding of the concepts and vocabulary that interconnect with information in the module units.
- Learning instructional strategies that support teaching students the concepts, knowledge, and skills related to the module units.
- Discovering ways to transfer and generalize the content, knowledge, and skills to future school, community, and work environments.

The module provides an overview of the social studies concepts, content, and vocabulary related to Colonialism (1600–1750), Development of a New Nation (1720–1787), and the Constitution and Foundation of the American Political System and provides suggested teaching strategies and ways to support transference and generalization of the concepts, knowledge, and skills. The module does not include lesson plans and is not a comprehensive instructional unit. Rather, the module provides information for educators to use when developing instructional units and lesson plans.

The module organizes the information using the following sections:

- Social Studies Academic Standards and Related Alternate Assessment Targets and Underlying Concepts;
- II. Connecting Concepts;
- III. Vocabulary and Background Knowledge information, including ideas to teach vocabulary;
- IV. Overview of Units' Content;
- V. Universal Design for Learning (UDL) Suggestions;
- VI. Transfer and Generalize Concepts, Knowledge, and Skills;
- VII. Concepts and Vocabulary Multi-Age Planning: Grades six through eight; and
- VIII. Tactile Maps and Graphics.

Section I

Social Studies Academic Standards and Related Alternate Assessment Targets and Underlying Concepts

It is important to know the expectations for each unit when planning for instruction. The first step in the planning process is to become familiar with the identified academic standards and related Alternate Assessment Targets (AATs) and Underlying Concepts (UCs) covered in the module. The AATs are specific statements of knowledge and skills linked to the grade-specific social studies academic standards. The UCs are basic key ideas or concepts linked to specific AATs. UCs are a basis for developing a more complex understanding of the knowledge and skills represented in the AAT and should not be taught in isolation. It is important to provide instruction on the AAT along with the UC in order to move toward acquisition of the same concepts, knowledge, and skills.

Table 1 includes the grade 8 academic standards and related AATs and UCs addressed by this module and organizes them by the units of study. While only the academic standards targeted for the Tennessee Comprehensive Assessment Program/Alternate (TCAP/Alt) are included, instruction on additional standards will aid in student understanding. Standards that are not included still represent important content for students to master. Therefore, the AATs and UCs included in the table do not cover all of the concepts that can be taught to support progress and understanding aligned to the standards.

The Tennessee Social Studies Academic Standards include the following codes

 $\begin{array}{lll} \text{C} - \text{Civics} & \text{H} - \text{History} \\ \text{E} - \text{Economics} & \text{P} - \text{People} \\ \text{G} - \text{Geography} & \text{TN} - \text{Tennessee} \end{array}$

Table 1. Social Studies Academic Standards and Related AATs and UCs 1

Academic Standards	Alternate Assessment Targets (AAT)	Underlying Concepts (UC)
Colonialism (1600–1750) Students will understand the social, political, and economic reasons for the movement of people from Europe to the Americas, and they will describe the impact of colonization by Europeans on American Indians and on the development of the land that eventually became the United States of America.		
8.3 Explain the founding of the Plymouth Colony, including the Separatists, William Bradford, Mayflower, Mayflower Compact, and Squanto. (CGHP)	Identify the Mayflower Compact as a set of rules; and that it provided a plan of government for the Pilgrims' colony.	Identify a reason why people need a system of government to choose leaders and make laws.
Development of a New Nation (1720–1787) Students will understand the major events preceding the founding of the nation and relate their significance to the development of the American Republic.		
8.22 Analyze the social, political and economic causes of the American Revolution and the major battles, leaders and events, including:	Identify actions the colonists took to protest British taxes (e.g., petitions, boycotts of British goods, chasing British	Identify ways a person can advocate for himself or herself.

Academic Standards	Alternate Assessment Targets (AAT)	Underlying Concepts (UC)
Mercantilism; Pontiac's Rebellion; The Proclamation of 1763; The Sugar Act, 1764; The Quartering Act, 1765; The Stamp Act, 1765; The Declaratory Act, 1766; The Townshend Act, 1767; The Boston Massacre, 1770; The Boston Tea Party, 1773; The Intolerable Acts, 1774; Patrick Henry; Benjamin Franklin; John Adams; Sam Adams; John Hancock; Thomas Jefferson; Sons of Liberty. (CEHP)	tax collectors out of town).	
8.25 Identify and explain the significance of the major battles, leaders, and events of the American Revolution, including: Battles of Lexington and Concord, Capture of Fort Ticonderoga, Battle of Bunker Hill (Breed's Hill), Battle of Trenton and Princeton, Battle of Saratoga, Valley Forge, Battle of King's Mountain, Battle of Yorktown, George Washington, Benedict Arnold, Hessians, Marquis de La Fayette, Friedrich von Steuben, George Rogers Clark, and Francis Marion. (CEHPTN)	Identify ways that leadership led to the American victory over the British during the American Revolution.	Identify why groups of people need leaders.
The Constitution and Foundation of the American Political System (1777–1789) Students analyze the political principles underlying the Constitution, compare the enumerated and implied powers of the federal government, and understand the foundation of the American political system and the ways in which citizens participate.		
8.33 Describe the principles embedded in the Constitution, including the purposes of government listed in the Preamble, separation of powers, check and balances, the amendment process, federalism, and recognition of and protections of individual rights in the Bill of Rights. (P)	Identify how the principles of the U.S. Constitution affect life in the modern United States.	Identify an individual right of a citizen in the United States.

Bill of Rights. (P)

¹ Instruction is not intended to be limited to the concepts, knowledge, and skills represented by the AATs and UCs listed in Table 1.

Section II

Connecting Concepts

Grade-level social studies content includes Connecting Concepts, concepts that connect information between different people, places, events, and time periods. Helping students make connections between these types of concepts and new content information supports comprehension of the concepts, knowledge, and skills as well as transference and generalization (see Section VI for more information). Connecting Concepts that are specific to this module connect to content across the units within the module as well as across modules and across grades.

A Connecting Concept is a common link between multiple standards and units of study. The Connecting Concepts, by being revisited and linked to multiple units of study, become a strong foundation of understanding and support the students in learning new concepts. For example, understanding how a political structure benefits people is a Connecting Concept that applies to the study of various forms of governments (e.g., direct democracy) and political agreements (e.g., Mayflower Compact and the U.S. Constitution). Some Connecting Concepts may apply across multiple content areas and instructional emphases (e.g., reading comprehension when reading information regarding primary documents and secondary sources).

Teaching Connecting Concepts

The following strategies pulled from the principles of UDL (CAST, 2011) are ways in which to teach Connecting Concepts to help students understand the concepts and make connections between different curricular content. During instruction, highlight:

- patterns (e.g., Show how leaders have shaped and continue to shape events and outcomes.),
- critical features (e.g., Emphasize the rights and responsibilities we have as citizens of the United States.)
- big ideas (e.g., We have the rights and freedom because of people's actions in history, and our actions will affect future generations.), and
- relationships (e.g., Make connections between ways groups of people advocate for rights and freedom and the resulting changes.)

For example, connect the rights people have to advocate for change to how the colonists used protests, boycotts, and petitions against the British. In addition, build connections between familiar and new information (e.g., the connection between familiar rights and freedoms to what was stated in the Bill of Rights).

Following are **Connecting Concepts** for this Content Module — Colonialism (1600–1750), Development of a New Nation (1720–1787), and the Constitution and Foundation of the American Political System.

Students understand:

- causes of disagreements and conflict between countries and groups of people
- ways groups of people advocate for rights and freedom
- importance of people's actions in history
- importance of leaders to guide change
- the structure and purpose of government and its relationship to democracy and citizenry
- how the United States of America became an independent country and a democracy
- how a political structure of a place benefits people
- the rights and responsibilities of citizens of the United States

Connecting Concept Resources1:

Grant Wiggins talks about "big ideas" in this article.

http://www.authenticeducation.org/ae bigideas/article.lasso?artid=99

This site provides examples and printable versions of graphic organizers for social studies that can be modified to meet the students' needs.

https://walch.com/samplepages/050078.pdf

Teaching History has a video explaining historical thinking to teachers and an article about how to adapt documents for the classroom.

- http://teachinghistory.org/historical-thinking-intro
- http://teachinghistory.org/teaching-materials/teaching-guides/23560

Education Resources Information Center provides a story with activities, Gram's Trunk, that motivates students to investigate history (grades K-8). http://eric.ed.gov/?id=ED466415

The American Historical Association shares the "five C's of historical thinking." https://www.historians.org/publications-and-directories/perspectives-on-history/january-2007/what-does-it-mean-to-think-historically

Section III

Vocabulary and Background Knowledge

Vocabulary is critical to building an understanding of social studies concepts, knowledge, and skills. The vocabulary words that students gain through experiences provide ways for students to comprehend new information (Sprenger, 2013). Students can better understand new vocabulary when they have some background knowledge to which they can make connections. In addition, learning new vocabulary increases students' background knowledge. Therefore, it is important to teach vocabulary purposely when introducing new concepts, knowledge, or skills (e.g., the Boston Tea Party) and in the context of the specific content (e.g., Teach the terms "tariff," "tax," "govern," "import," and "protest" in the context of explaining the causes and the events of the Boston Tea Party.).

¹ The resources in this module may change over time and no longer be available.

This module includes two types of vocabulary words, both equally important to teach. The first type, **general vocabulary words**, labels groups of words that address different people, places, events, and time periods. For example, understanding the meaning of the word "rights" helps students to connect many different rights (e.g., free speech, bear arms, etc.) that U.S. citizens were granted with the Bill of Rights. The second type of vocabulary word, **specific content words**, represents groups of words that address a specific person, group of people, place, event, or time period. Specific content words are typically proper nouns, such as Mayflower Compact, and connect to general words (e.g., leader, govern, colony, etc.). Providing instruction on general words provides background knowledge when introducing corresponding or related specific words.

Key Vocabulary for Instructional Units

Table 2 and Table 3 contain lists of key general vocabulary words and specific content words that are important to the units in this module. Each general vocabulary word should be taught to the student using a student-friendly description of what the word means, an example of the word, and a historical example.

Teach the specific content vocabulary using a student-friendly description of the word meaning and a possible connection to a general vocabulary word. Do not teach memorization of vocabulary words; instead place emphasis on understanding the word. For example, a student should be able to give an example of a freedom (e.g., freedom of speech) instead of simply defining the word "freedom."

Table 2. General Vocabulary Words

General Vocabulary – words that generalize to different people, places, events, and time periods. Describe the word and provide examples (e.g., Boycott means to stop buying or using goods/products from a company or country to complain. *Example: The colonists boycotted British goods.*).

advocate	• freedom	religious freedom
amendment	govern/government	representative/representation
• amenament	9 govern/government	
• army	• imports	 responsibility
• battle	 independence 	• rights
boycott	 individual right 	• rules
 checks and balances 	• laws	• safety
• citizen	 leaders/leadership 	 separation of powers
 civic duty 	 military 	• shelter
 colony/colonists 	• petition	social/society
• congress	• pilgrim	• soldier
 constitution 	 political 	tariffs
economy/economics	• principles	• tax
• exports	 protect/protection 	• trade
• federalism	• protest	

Table 3. Specific Content Words

Specific Content Words — words that are specific to content (e.g., person, place, event). Describe the word and when possible make the connection to a Connecting Concept (e.g., Learning about the Stamp Act connects to understanding the causes of disagreements and conflict between countries and groups of people.).

' ' '		
American Indians	George Washington	Sons of Liberty
American Revolution	Great Britain/British	Squanto
 Battle of Bunker Hill (Breed's Hill) 	Hessians	The Boston Massacre
 Battle of King's Mountain 	 John Adams 	The Boston Tea Party
 Battles of Lexington and Concord 	John Hancock	The Declaratory Act
Battle of Saratoga	 limited government 	The Intolerable Acts
Battle of Trenton and Princeton	Marquis de La Fayette	• The Proclamation of 1763
Battle of Yorktown	 Mayflower 	The Quartering Act
Benedict Arnold	Mayflower Compact	The Stamp Act
Benjamin Franklin	 mercantilism 	The Sugar Act
Bill of Rights	Patrick Henry	The Townshend Act
Capture of Fort Ticonderoga	 Pilgrims 	Thomas Jefferson
 Colonialism 	Plymouth Colony	U.S. Constitution
• England	Pontiac's Rebellion	Valley Forge
Francis Marion	 Preamble to the U.S. Constitution 	William Bradford
Friedrich von Steuben	Sam Adams	
George Rogers Clark	 Separatists 	

Ideas to Support Vocabulary Learning

Table 4 includes ideas and examples for teaching vocabulary in a way to build conceptual understanding of the words.

Table 4. Ideas to Teach Vocabulary Effectively (Marzano 2004)²

Ideas	Examples
Explain, describe, and/or give examples of the vocabulary word rather than formal definitions.	For example, "An amendment is a change made to make a document better. Amendments were added to the U.S. Constitution to improve it."
Have students restate the vocabulary word in their own words. Take this opportunity to help students connect	Have students draw or use pictures to identify and describe vocabulary words such as "protest," "battle," "army," "soldier," etc.
new vocabulary, especially general vocabulary, to prior knowledge.	Have students give examples of current ways of advocating for change (e.g., letters to the editor, social media, petitions, protests, etc.).

Ideas	Examples
Have students represent vocabulary words in pictures, symbols, graphic organizers, or pictographs.	Have students keep a vocabulary notebook with images (see Figure 1 for an example). Provide support as needed (e.g., help from peer or adult, viewing model, using alternative and augmentative communication [AAC], etc.).
Provide multiple exposures to vocabulary words in a variety of ways. This does not suggest mass trials, but rather distributed trials in different ways or contexts. Reference http://projectlearnet.org/tutorials/learning trials.html for information on learning trials. • Expose students by incorporating vocabulary into daily activities when it is appropriate. • Read books or watch videos related to the vocabulary and concepts. • Have students complete activities such as sorting words into categories.	 Talk about words related to rights and freedoms (e.g., independence, citizen, free speech, etc.) when relating to rights and freedoms students have (e.g., right to a free education, rights as a citizen, etc.). Watch a video about the Bill of Rights (e.g., http://ed.ted.com/lessons/a-3-minute-guide-to-the-bill-of-rights-belinda-stutzman). Have students read an adapted book about the U.S. Constitution. (e.g., http://tarheelreader.org/2008/10/08/first-amendment-rights/2/). Have students practice with flashcards in either a paper version or online (e.g., https://quizlet.com/subject/Bill-of-rights/).
Ask students to discuss the vocabulary words with each other.	 Have students use their mode of communication to use a word in a sentence or choose the sentence that uses the word correctly. Have students share their representations (e.g., pictures) of their favorite word with each other.
Play vocabulary word games with students.	 Have students review terms using flashcards (e.g., http://www.cram.com/flashcards/mayflower-compact-738241). Have students complete word wall activities (e.g., http://www.readingrockets.org/content/pdfs/World Walls- http://www.readingrockets.org/content/pdfs/World Walls-
Have students watch a dramatization or have them act out the vocabulary term. ² Refer to Section V. Universal Design for Le	Create posters protesting British acts and act out a protest march. earning (UDL) Suggestions for additional instructional

² Refer to Section V, Universal Design for Learning (UDL) Suggestions for additional instructional strategies.

Vocabulary Example

To build an understanding of terms relating to colonial America, the American Revolution, and the U.S. Constitution, have students complete a vocabulary notebook by drawing or pasting representative images into the notebook and writing a description and/or example next to each image. See Figure 1 for an example. Educators may need to support, modify, or adapt steps as needed for individual students.

For example, one student may choose an image and description from two choices, another student may dictate the descriptions pre-programmed into his/her AAC device, and another student may write the description. Two National Center and State Collaborative (NCSC) resources are available and may prove helpful:

- Use systematic instruction as described in the NCSC Instructional Guide (https://wiki.ncscpartners.org)
- Reference ideas in the NCSC Vocabulary and Acquisition Content Module (https://wiki.ncscpartners.org)

Figure 1. Vocabulary Notebook with Images



Vocabulary Resources:

Vocabulary.com provides explanations of words using real-world examples. Once signed in, an educator can create word lists for students. http://www.vocabulary.com/

Text Project provides Word Pictures that are free for educators to use. It includes word pictures for core vocabulary and various content areas including science and social studies. This link will take you to the Word Pictures page where you can select the category of words you want to use.

http://textproject.org/classroom-materials/textproject-word-pictures/

The Teach Tennessee History site has Frayer Model explanations and organizers, along with many other types of organizers that may be useful.

http://www.teachtnhistory.org/index.cfm/m/223/Teacher_Resources/

Education Place provides a variety of graphic organizers to be used for vocabulary instruction that are free to print and copy. http://www.eduplace.com/graphicorganizer/index.jsp

Directions and link to creating an online memory game that can be used for vocabulary or concepts. https://www.youtube.com/watch?v=XwNAX26J oQ and http://matchthememory.com/

Section IV

Overview of Units' Content

This section of the module contains additional content and references to support educators' understanding and instruction of the instructional units. The information reflects important content to address the AATs and to build students' knowledge, skills, and abilities; however, it is not exhaustive and should be expanded upon as needed.

Unit 1 – Colonialism (1600–1750): Students will understand the social, political, and economic reasons for the movement of people from Europe to the Americas, and they will describe the impact of colonization by Europeans on American Indians and on the development of the land that eventually became the United States.

Content:

Founding of Plymouth Colony

- Reason(s) the Pilgrims (also known as Separatists in England) established a colony in America
- The Pilgrims' journey on the Mayflower
- The creation and purpose of the Mayflower Compact
- Reasons for a system of government to choose leaders and make laws
- Squanto's role in helping the Pilgrims and help from neighboring American Indian tribes
- Leadership of William Bradford as governor of the Plymouth Colony

Unit 2 – Development of a New Nation (1720–1787): Students will understand the major events preceding the founding of the nation and relate their significance to the development of American Republic.

Content:

Causes of the American Revolution, Methods of Protest, Key Leaders

- Social factors contributing to the American Revolution (e.g., religious freedom, equal rights, independence, etc.)
- Political events and acts contributing to the American Revolution:
 - o Pontiac's Rebellion (an uprising following the end of the French and Indian War)
 - The Proclamation of 1763 (limiting colonists to settling east of the Appalachian Mountains)
 - The Quartering Act, 1765 (requiring American colonies to provide food and shelter for British troops)
 - The Declaratory Act, 1766 (allowing laws passed in England to be applied to American colonies)
 - The Intolerable Acts, 1774 (series of laws passed as reprisals for the Boston Tea Party which brought hardship on the American colonists)
- Economic factors contributing to the American Revolution:
 - Mercantilism (trade policies that benefited England over the colonies)
 - The Sugar Act, 1764 (tax on sugar and molasses imported into the colonies)
 - o The Stamp Act, 1765 (requiring every legal document to be printed on specially stamped paper)
 - The Townshend Acts, 1767 (series of laws that added taxes to a variety of imports)
- Methods used by the American colonists to communicate problems with and protest British rule (e.g., town meetings, petitions, demonstrations, boycotts, etc.):

- The Boston Massacre, 1770 (British soldier firing into a rioting mob killed five American colonists.)
- The Boston Tea Party, 1773 (Colonists raided three British ships and dumped containers of tea into the harbor.)
- Key leaders during the time leading up to and during the American Revolution:
 - Patrick Henry
 - o Benjamin Franklin
 - John Adams
 - Sam Adams
 - John Hancock
 - o Thomas Jefferson
 - Sons of Liberty

American Revolution Battles, Leaders, and Events

- Significant major battles of the American Revolution:
 - o Battles of Lexington and Concord
 - o Battle of Bunker Hill (Breed's Hill)
 - o Battle of Trenton and Princeton
 - Battle of Saratoga
 - Battle of King's Mountain
 - o Battle of Yorktown
- Significance of major events of the American Revolution:
 - o Capture of Fort Ticonderoga
 - o Valley Forge
- Role played by leaders in the American Revolution:
 - George Washington
 - o Benedict Arnold
 - o Hessians
 - o Marquis de La Fayette
 - o Friedrich von Steuben
 - o George Rogers Clark
 - o Francis Marion

Unit 3 – The Constitution and Foundation of the American Political System (1777–1789) Students analyze the political principles underlying the Constitution, compare the enumerated and implied powers of the federal government, and understand the foundation of the American political system and the ways in which citizens participate.

Content:

- Purpose of the Preamble to the U.S. Constitution (e.g., explains reasons for writing the U.S.
 Constitution: justice, domestic tranquility, common defense, general welfare, liberty, power of the people)
- Principles of the U.S. Constitution (e.g., limiting government, checks and balances, federalism, separation of powers)
- Protections in the Bill of Rights (e.g., freedom of speech, press, and religion, right to keep and bear arms, no quartering of soldiers, etc.)

Unit Content Resources:

Time Maps has a timeline that links to historical maps for a variety of places. http://www.timemaps.com/history/world-1453ad

Founding of Plymouth Colony

- CK-12 provides information on the founding of the Plymouth Colony. http://www.ck12.org/user%3Aa2fyzw4ubgf3c29uqhrjc2vkds5uzxq./book/Tennessee-8th-Grade-Social-Studies/section/2.3/
- History.com has multiple pages with information on the Plymouth Colony and its government.
 - Plymouth Colony http://www.history.com/topics/plymouth#
 - Mayflower Compact http://www.history.com/topics/mayflower-compact
 - o William Bradford http://www.history.com/topics/william-bradford
- This site has a lesson plan on the Plymouth Colony.
 http://www.everythingesl.net/lessons/plymouth_colony.php
- Study.com provides a lesson plan on the Mayflower Compact.
 http://study.com/academy/popular/mayflower-compact-lesson-plan.html

Causes of the American Revolution

- CK-12 has information related to the causes and battles of the American Revolution.
 http://www.ck12.org/user:a2FyZW4ubGF3c29uQHRjc2VkdS5uZXQ./book/8th-Grade-Social-Studies/section/3.9/
- Land of the Brave has information on taxation in the American colonies. https://www.landofthebrave.info/colonial-life-in-the-american-colonies.htm
- This site provides an instructional lesson using images of the American Revolution. https://www.archives.gov/education/lessons/revolution-images/activities.html
- Mr. Donn's site has lessons on the American Revolution. http://americanhistory.mrdonn.org/revolution-unit.html

Key Leaders of the American Revolution

- Information on important people of the American Revolution. http://mrnussbaum.com/ampeople/ and http://www.theamericanrevolution.org/people.aspx
- Spark Notes has abbreviated information on key people and terms of the American Revolution. http://www.sparknotes.com/history/american/revolution/terms.html
- These sites provide information on the Sons of Liberty.
 http://www.ushistory.org/declaration/related/sons.html and https://www.landofthebrave.info/sons-of-liberty.htm
- CK-12 provides information on leaders of the American Revolution.
 https://www.ck12.org/user:stevensnyder/book/8th-U.S.-History-Text-Book/section/3.12/
- Land of the Brave provides facts about numerous leaders during the American Revolution. https://www.landofthebrave.info/revolutionaries.htm

Events and Battles of the American Revolution

- CK-12 provides information on multiple subtopics.
 - Battle of Bunker Hill and Capture of Fort Ticonderoga.
 http://www.ck12.org/user:a2FyZW4ubGF3c29uQHRjc2VkdS5uZXQ./book/8th-Grade-Social-Studies/section/3.14/

- Battle of King's Mountain and Battle of Yorktown.
 http://www.ck12.org/user:a2fyzw4ubgf3c29uqhrjc2vkds5uzxq./book/Tennessee-8th-Grade-Social-Studies/section/3.16/
- Land of the Brave provides information on major battles of the American Revolution. https://www.landofthebrave.info/revolutionary-battles.htm
- This site has information on the significance of Valley Forge. http://www.ushistory.org/us/11f.asp
- TN History for Kids has information on the Battle of King's Mountain. http://www.tnhistoryforkids.org/places/kings_mountain_
- History is Fun provides lesson plans on the American Revolution.
 http://www.historyisfun.org/learn/learning-center/colonial-america-american-revolution-learning-resources/american-revolution-lesson-plans-activities/
- This site has lesson plans on battles of the American Revolution. http://revolution.mrdonn.org/lessonplans.html

The U.S. Constitution

- Book Units Teacher has lesson plans with activities and online quizzes on the U.S. Constitution.
 http://www.bookunitsteacher.com/government/constitution main.htm
- Docs Teach provides primary sources and learning activities related to the U.S. Constitution. https://www.docsteach.org/topics/constitution
- EDSITEment has a close reading lesson on the Preamble to the U.S. Constitution. https://edsitement.neh.gov/lesson-plan/preamble-constitution-close-reading-lesson
- This site provides a lesson plan on the U.S. Constitution. http://digitalcommons.trinity.edu/cgi/viewcontent.cgi?article=1027&context=educ_understandings
- Mr. Kash provides information and activities on the U.S. Constitution. http://mrkash.com/activities/activities.html#constitution
- This site has information, videos, and activities related to the U.S. Constitution and the Bill of Rights. http://www.socialstudiescms.com/constitution-and-foundation-of-america
- This site provides lesson plans on six big ideas in the U.S. Constitution. https://www.archives.gov/legislative/resources/education/constitution

Section V

Universal Design for Learning (UDL) Suggestions

The three principles of UDL guide development of instruction, instructional materials, and assessments to provide the widest range of students with access to learning. Students with significant cognitive disabilities, especially students with visual and/or hearing impairments and students with complex communication needs, require additional scaffolds, adaptations, and modifications to access content and support learning. The three principles of UDL establish a framework for providing these. UDL provides guiding principles to create instructional materials and activities in a flexible manner to address the needs of different types of learners. Additionally, the flexibility allows for further individualization. Table 5 provides strategies for the UDL Principle I, **Multiple Means of Representation**: presenting information in a variety of ways to address the needs of different types of learners. Table 6 provides strategies for the UDL Principle II, **Multiple Means of Action and Expression**: providing a variety of ways for students to interact with the instructional materials and to demonstrate understanding. Table 7

provides strategies for the UDL Principle III, **Multiple Means of Engagement**: providing a variety of ways to engage and motivate students to learn.

These strategies can assist all students in understanding the basic concepts. Some of the examples include adaptation ideas for students with vision, hearing, and/or physical limitations. Each example has a code to indicate when it includes specific adaptation ideas for these needs:

V = visually impaired (low vision, blind, or deaf-blind)

H = hearing impaired (deaf, hard of hearing, or deaf-blind)

P = physical disability (limited use of hands)

Table 5. Instructional strategy ideas using the UDL Principle: Multiple Means of Representation

Multiple Means of Representation		
Strategies	Examples	
Introduce information through a multisensory approach (e.g., auditory, visual, tactile).	Have students listen to online information on George Washington (e.g., https://librivox.org/boys-book-of-famous-soldiers-by-j-walker-mcspadden/). V Present the types of goods that the colonists were taxed on (e.g., tea, playing cards, paper, sugar, molasses, etc.). V Watch a video about the Mayflower Compact (e.g., http://ket.pbslearningmedia.org/resource/americanexperience27p-soc-compact/wgbh-americanexperience-the-pilgrims-mayflower-compact/) and the Bill of Rights (e.g., https://www.youtube.com/watch?v=yYEfLm5dLMQ).	
Model content through pictures, dramatization, videos, etc.	Have students look at pictures of the type of housing, clothes, food, chores, school, and games Pilgrims experienced in their daily life (e.g., http://www.scholastic.com/scholastic thanksgiving/daily life/). Have students listen to a reenactment of Patrick Henry's "Give me Liberty" speech (e.g., https://www.history.org/almanack/people/bios/biohen.cfm#speech). Have students participate in a hands-on activity that demonstrates why colonists disliked the British taxes (e.g., http://www.bookunitsteacher.com/revolutionary_war/activities for lesson 2.htm).	
Present information using modified graphic organizers (e.g., simplified organizers with pictures) or maps.	Have students place labels for the battles of the American Revolution on a map of the New England states. Use solid colors to represent each state on the map. V Have preprinted labels on thick cardboard to ease manipulation. P Present tactile timelines for the unit (e.g., add a cardboard cutout of the Mayflower, a piece of parchment paper for the Mayflower Compact, a dried ear of corn, etc., to a clothesline when introducing the Pilgrims settling in America). V	
Provide appropriate and accessible text on the content for students to listen to or read.	Paraphrase information from a textbook on large sticky notes. Place the sticky note over the original text, leaving the graphics. Write or type with a bold and plain font (e.g., Verdana, 18 pt. font) with good spacing between lines (e.g., 1.5 vs single spacing). V Have students read an online text about Squanto (e.g., http://www.biography.com/people/squanto-9491327#synopsis) and William Bradford (e.g., http://www.biography.com/people/william-bradford-101415) using a screen reader. V	

	Use established signs for history terminology (e.g., https://www.youtube.com/watch?v=rRt6lunVU6A). H
Teach information using songs.	Have students listen to songs about the Bill of Rights (e.g., https://www.youtube.com/watch?v=KtH5KjiHeps&list=PLE9ndukocXkrWwwakTfbC0s
	<u>rS1Xx2ByW4</u>).

Table 6. Instructional strategy ideas using the UDL Principle: Multiple Means of Action and Expression

Multiple Means of Action and Expression		
Strategies	Examples	
Use assistive technology to allow the student to interact with the instructional materials and content.	Have students help create and interact with a virtual museum (e.g., http://christykeeler.com/EducationalVirtualMuseums.html). Use adapted keyboard and mouse. P Have students view animated maps of the American Revolution battles (e.g.,	
	http://historyanimated.com/verynewhistorywaranimated/?page_id=17). Have students read an online book with built-in text reader (e.g., http://bookbuilder.cast.org/view.php?op=view&book=56925&page=1). Use adapted mouse to turn pages. P	
	Use the accessibility features (e.g., high contrast, magnifier, narrator, online keyboard, etc.) of the computer operating system or the web browser to increase access. V/P	
Present instructional materials in a manner that provides access.	Place materials within the student's range of motion. Attach page fluffers (e.g., http://www.theoatc.org/resources/FoamCoveredPageFluffers.asp) on pages of a text. P Provide a backpack that includes textures, objects, and pictures representing content of a text (e.g., article on British taxes on colonists) for students to explore as the text is read to the student. V/P	
Provide voice output devices for students to select the correct answer.	Record correct answers and distractors on a voice output multiple message switch or multiple voice output switches and have students answer questions using the switch. V/P Consider having students use three switches with generic labels (e.g., a, b, c or red, blue, green, three different textures) in which they listen to all three and then select the correct answer. V/P	
Provide simulation activities.	Have students participate in a simulation designing a colony based on challenges early colonists faced (e.g., http://colonialamerica.thinkport.org/welcome-to-colonial-america.html).	
Create accessible graphic organizers (e.g., a digital graphic organizer that allows	Have students drag labels for American Revolution events to the correct order on a timeline (e.g., http://mrnussbaum.com/american-revolution-timeline-game/). P	

drag and drop) and maps.	Have students browse through pictures showing events leading to the
	American Revolution (e.g., http://www.capzles.com/#/5db7f9c8-6daf-
	43fd-b05e-aa02d4860c54/). Use adapted mouse. P

Table 7. Instructional strategy ideas using the UDL Principle: Multiple Means of Engagement

Multiple Means of Engagement		
Strategies	Examples	
Provide a schedule and visual timer.	Have students select the next activity on their personal schedule and set the visual timer to indicate how long the student has before a break. Have students use a mini-schedule or a first-then schedule for each content instructional session. Provide a schedule with tangible symbols. V/P	
	Have students check off each step of a task as completed.	
Vary the challenge and amount of information presented at a time.	Teach the broad concept of the Bill of Rights and each right individually. Introduce the big idea of the hardships that British taxes caused the colonists before introducing specific tax acts. Provide information in short blocks of time, gradually increasing the instructional time.	
Make connections to topics or activities that are motivating.	Watch a video about ways to change things (e.g., https://www.youtube.com/watch?v=4z7gDsSKUmU) and then discuss ways the colonists tried to change their lives under British rule. Have students say everyday phrases (e.g., Hi, how are you?) the way Pilgrims may have said them (e.g., http://www.plimoth.org/learn/just-kids/talk-pilgrim).	
Allow choices as possible.	Allow students to choose the color, design, and photos to use for creating a protest sign to reenact protesting British taxes. Allow students to set their academic and behavioral goals with assistance as needed. Allow students to choose a seating option (e.g., on a wedge, on a stool, or even standing).	
Provide opportunities to work collaboratively with peers.	Provide opportunities for students to work in a general education classroom with peers when learning about events leading to the American Revolution or have peer tutors come into the special education classroom to work on a project about the American Revolution. Model how to support students' learning for the general education teacher and classmates.	
Teach student self- regulation skills.	Provide students communication symbols to request a break or express feelings and model how to use appropriately. Modify the school-wide behavior system to make it accessible for the students. Have students monitor their own behavior and quality of work.	

UDL Resources

The National Center on Universal Design for Learning has a plethora of information on UDL and examples and resources.

www.udlcenter.org

Symbaloo is a free online tool that allows an educator to create bookmarks using icons. It is easy to create and allows an educator to provide students links to sources of information that can be used for specific instructional units.

www.symbaloo.com

This site provides a brief description of Symbaloo and multiple ways to use the online tool. https://www.theedublogger.com/2014/04/09/11-ways-to-use-symbaloo-in-the-classroom/

Perkins School for the Blind provides information on using tangible symbols to increase communication, create personal schedules, and provide choices.

http://www.perkinselearning.org/videos/webcast/tangible-symbols

Teaching History provides directions for adapting documents for classroom use. http://teachinghistory.org/teaching-materials/teaching-guides/23560

Section VI

Transfer and Generalize Concepts, Knowledge, and Skills

For learning to be meaningful for all students, including students with significant cognitive disabilities, it is important to intentionally make connections to future content, real-world application, and college and career readiness skills. For example, explain how the U.S. Constitution affects the freedoms and rights we have today as well as the limits to those freedoms and rights. Additionally, the instruction of social studies concepts, knowledge, and skills may be the catalyst to developing other areas such as needed communication skills, reading/listening comprehension, age-appropriate social skills, independent work behaviors, and skills in accessing support systems. Table 8 provides instructional ideas to help transfer and generalize concepts, knowledge, and skills and suggested opportunities to embed other skills into instruction.

Table 8. Transfer and Generalization Ideas

Area	Instruction	Opportunity to Embed Skills
Communication	While teaching vocabulary, make connections to real-life or future opportunities to use the words (e.g., while advocating for self and others).	Use the context of the content area instruction to increase language skills, work on articulation, or access alternative and augmentative communication (AAC) systems.
Reading and Listening Comprehension	Provide information through reading books and articles when working on reading/listening comprehension or word identification.	Provide practice on communication skills when students are answering questions about the book or article on the content. Work on improving self-evaluation skills.
Age-Appropriate Social Skills	Make connections between the Connecting Concepts and real-life experiences showing how our rights and freedoms help us work together in a community.	Provide opportunities to work alongside same age peers to practice ageappropriate social skills.
Independent Work Behaviors	Encourage and reinforce independent completion of tasks to build independent work skills.	Practice use of personal schedules and mini-schedules during content instruction.
Skills in Accessing Support Systems	Encourage students to ask appropriately for assistance from peers and adults when working on the content.	Use this time to have the student work on behavior and communication skills.

Section VII

Concepts and Vocabulary Multi-Age Planning: Grades Six through Eight

Multi-age planning requires that instructional decisions address the span of the grade levels of the students in the class. Recognizing the Connecting Concepts and the General and Specific Vocabulary that apply to multiple units within and across a grade span provides information to teach concepts that build a foundation for specific curricular content (i.e., specific people, places, events, and time periods). This section illustrates the grade-level **Connecting Concepts** and the **General and Specific Vocabulary** across grades six through eight. This view (see Tables 9-13) allows educators of multi-age and multi-grade classrooms to address the same or similar concepts and vocabulary to all students along with the specific curricular content.

Table 9. Physical and Human Geography Concepts and Vocabulary

Physical and Human Geography

Geographical features and the spatial organization of people and places impact different stages in the history of culture and civilization. Maps and other representations of places and regions convey the influence of geography on economic development, discovery, and use of resources by various cultures and civilizations.

Physical and Human Geography

Geographical features and the spatial organization of people and places impact different stages in the history of culture and civilization. Maps and other representations of places and regions convey the influence of geography on economic development, discovery, and use of resources by various cultures and civilizations.

 UC: Identify products manufactured in the North or products grown in the South using a historical resource map.

- Asia
- Athens
- Black Sea
- Caspian Sea
- Caucasus Mountains
- Cumberland Gap
- Dead Sea
- Dutch
- Egypt
- England
- Euphrates River
- Europe
- Fertile Crescent
- France
- Giza
- Israelites
- Jackson Purchase
- Marco Polo
- Mediterranean Sea
- Mesopotamia
- Natchez Trace
- North America
- Persian Gulf
- Portugal
- Pyramids
- Rome
- Sea of Galilee
- Silk Road
- Song Dynasties
- South America
- Spain
- Sphinx
- Tigris River
- Zagros Mountains

Table 10. Culture Concepts and Vocabulary

Culture

Advancement and growth of human culture and civilization relates to development of literature, the

arts, science, mathematics, and engineering in times past and present, and affects how people live in				
particular places.				
Grades 6 - 8	Concepts	Vocabulary		
AAT: Identify the importance of irrigation,				
particular places. Grades 6 - 8	Concepts Understand: • the effect of new developments, technology, and inventions on people's lives in the past and present • how people and places can affect learning, art, architecture, and literature • how learning, art, architecture, and literature affect people's lives • the relationship between learning and growth/advancement of societies • the effect of exchanging goods on people living in different places (e.g., new products, diseases, etc.) • reasons people move to different	Vocabulary General:		
people may want to migrate from one location to another. AAT: Compare the importance of architecture or engineering contributions of				
 ancient Rome to engineering achievements in today's modern day world (i.e., roads, aqueducts, or bridges). (6.70) UC: Identify a feature of today's society related to achievements of Ancient Rome (e.g., roads, aqueducts, or bridges). 	guide/affect change	 irrigation king/kingdom law leader literature mathematics 		
		- mathematics		

Culture

Advancement and growth of human culture and civilization relates to development of literature, the arts, science, mathematics, and engineering in times past and present, and affects how people live in particular places.

AAT: Identify a relationship between the growth of a kingdom and the development of culture and learning in West or North Africa (7.13)

• **UC:** Match the growth of a community to an increase in the number of schools.

AAT: Identify how Chinese technology (e.g., papermaking, wood-block printing, the compass or gunpowder) helped people during the Song Dynasties. (7.23)

• **UC:** Identify an important use of the compass in today's world.

AAT: Identify how advances in science, mathematics or map building helped people during the Renaissance. (7.48)

• **UC:** Identify a reason why learning new things is important.

AAT: Identify an effect of the exchange of products (e.g., potatoes, tomatoes, or corn) between the Americas and the world. (7.74)

 UC: Identify important agricultural products (e.g., potatoes, tomatoes, or corn) exchanged between people living in different places.

- metal-smithing
- migrate
- papermaking
- papyrus
- plow
- plumbing
- poetry
- print
- product
- record keeping
- roads
- route
- sail
- salt
- sanitation
- science
- slavery
- sphinx
- system of writing
- technology
- trade
- transportation
- wheel
- wood-block printing

Specific:

- Abraham
- Americas
- Ancient Rome
- Canaan
- China/Chinese
- Circus Maximus
- Coliseum
- Egypt
- Europe
- Ghana Kingdom
- Israelites
- Jenne
- Johann Gutenberg
- Leonardo da Vinci

Culture			
Advancement and growth of human culture and civiliz arts, science, mathematics, and engineering in times particular places.	•		
	 Mali Kingdom Mesopotamia Michelangelo Moses New World North Africa North America Pyramid at Giza Renaissance Song Dynasties Songhai Kingdom Sphinx at Giza Timbuktu West Africa William Shakespeare 		

Table 11. Economics Concepts and Vocabulary

Economics

Human and physical capital, natural resources, and technology on a local and global scale impact production, distribution, and consumption of goods and services. Decisions about how to use resources influence the welfare of individuals and societies.

influence the welfare of individuals and societies.				
Grades 6 - 8	Concepts	Vocabulary		
AAT: Identify the importance of trading goods for the development of cities (e.g., Timbuktu) in West or North Africa. (7.16) • UC: Match the growth of a community to an increase in commerce and trade. AAT: Identify ways agriculture or trade helped people during the Song Dynasties. (7.22) • UC: Match an increase in farmland to an increase in food production. AAT: Identify a sequence of events that led to peasants becoming a merchant class. (7.41) • UC: Identify why a successful community needs many people who can do different jobs. AAT: Identify events associated with the discovery of gold in California (e.g., people traveled to California; the population of California grew; development of new mining techniques). (8.63) • UC: Identify a change to a community that results from the discovery of a nearby natural resource (e.g., gold, coal or oil).	 basic economics types of goods and services the importance of trading/exchanging goods and services how goods and services are exchanged reasons people move to and/or leave places benefits, reasons, and ways groups cooperate types of economies and the effects of change in an economy (e.g., jobs, where people live, what they spend money on, etc.) how natural resources affect a community the relationship between economic development and the impact on culture and learning. 	General: agriculture banks camel caravan city coal commerce/commercial community economy family farm/farmer gold goods guild jobs labor lord merchant/merchant class mining/miners natural resource oil peasants rice school services state technology town trade Specific: 49'ers California John Sutter Niger River Sahara Desert		

Economics				
Human and physical capital, natural resources, and technology on a local and global scale impact production, distribution, and consumption of goods and services. Decisions about how to use resources influence the welfare of individuals and societies.				
		 Song Dynasties 		
		 United States 		
		West Africa		

Table 12. Civics and Politics Concepts and Vocabulary

Civics and Politics

Responsible and effective citizens understand structures of power and authority and the principles they reflect; their role within a community, a nation, and the world; and develop civic efficacy. Connections to the past and the way governments, principles, and traditions have developed impact current societies.

Civics and Politics

Responsible and effective citizens understand structures of power and authority and the principles they reflect; their role within a community, a nation, and the world; and develop civic efficacy. Connections to the past and the way governments, principles, and traditions have developed impact current societies.

leaders.

AAT: Identify how the principles of the U.S. Constitution affect life in the modern United States. (8.33)

• **UC:** Identify an individual right of a citizen in the United States.

AAT: Identify the sequence of events that led to the development of Tennessee statehood using a timeline. (8.39)

 UC: Identify a reason different groups of people (i.e., early settlers in Tennessee and Native Americans) need to cooperate with each other.

AAT: Identify the importance of the Emancipation Proclamation in 1863. (8.76)

 UC: Identify ways a person can influence the actions or decisions of a group of people.

- polis/city-state
- protect/protection
- representative democracy
- representatives
- rights
- rule of law
- rules
- safety
- separation of powers
- settlers
- statehood
- timeline
- victory
- vote
- western

Specific:

- American Indian
- American Revolution
- Ancient Greece
- Battles:
 - Bunker Hill (Breed's Hill)
 - o Concord
 - o King's Mountain
 - o Lexington
 - o Princeton
 - o Saratoga
 - o Trenton
 - o Yorktown
- Benedict Arnold
- Bill of Rights
- British
- Capture of Fort Ticonderoga
- Cumberland Gap
- EmancipationProclamation (1863)

Civics and Politics

Responsible and effective citizens understand structures of power and authority and the principles they reflect; their role within a community, a nation, and the world; and develop civic efficacy. Connections to the past and the way governments, principles, and traditions have developed impact current societies.

- Europe
- Francis Marion
- Friedrich Von Steuben
- George Rogers Clark
- George Washington
- Gettysburg Address (1863)
- Greece
- Hessians
- House Divided speech (1858)
- Jackson Purchase
- John Sevier
- Marquis de La Fayette
- Mayflower
- Mayflower Compact
- Middle Ages
- Natchez Trace
- Pilgrim
- Plymouth Colony
- Preamble
- Rocky Mount
- Roman Republic
- Separatists
- Squanto
- Tennessee
- Treaty of Holston
- U.S. Constitution
- United States
- Valley Forge
- William Blount
- William Bradford

Table 13. History: Change, Continuity, and Context Concepts and Vocabulary

History: Change, Continuity, and Context

Historical events, the processes of change and continuity over time, the context within which events occur, and the significance of the contributions by individuals from various ethnic, racial, religious, and socioeconomic groups impact the development of civilizations and societies around the world.

Grades 6 – 8	Concepts	Vocabulary
AAT: Identify actions the colonists took to protest British taxes (e.g., petitions, boycotts of British goods, chasing British tax collectors out of town). (8.22) UC: Identify ways a person can advocate for himself or herself. AAT: Identify causes of the Texas War of Independence. (8.59) UC: Identify reasons that cause disputes among groups of people. AAT: Identify how the Underground Railroad helped slaves move northward to freedom. (8.66) UC: Identify reasons why slaves would want to escape (such as living conditions, family structure, etc.).	Understand:	General: abolitionist boycott colonist escape freedom goods leader petition political protest settlements slaves social tax war Specific: Alamo Benjamin Franklin David Crockett Elihu Embree Francis Wright Frederick Douglass Free Hill, Tennessee Harriet Beecher Stowe Harriet Tubman John Adams John Brown John Brown John Hancock Mercantilism Nashoba Commune Patrick Henry Pontiac's Rebellion Sam Adams Sam Houston Sons of Liberty

History: Change, Continuity, and Context Historical events, the processes of change and continuity over time, the context within which events occur, and the significance of the contributions by individuals from various ethnic, racial, religious, and socioeconomic groups impact the development of civilizations and societies around the world. Texas Texas War of Independence The Boston Massacre (1770)The Boston Tea Party (1773)The Declaratory Act (1766)The Emancipator The Intolerable Acts (1774)The Liberator The Proclamation of 1763 The Quartering Act (1765)The Slave Narratives The Stamp Act (1765) The Sugar Act (1764) The Townshend Acts (1767)**Thomas Jefferson** Uncle Tom's Cabin **Underground Railroad** Virginia Hill

References:

National Council for the Social Studies (NCSS), *The College, Career, and Civic Life (C3) Framework for Social Studies State Standards: Guidance for Enhancing the Rigor of K-12 Civics, Economics, Geography, and History* (Silver Spring, MD: NCSS, 2013).

Section VIII

Tactile Maps and Graphics

The maps and graphics guidelines will help create tactile versions of instructional maps, diagrams, models, and timelines to use with students who are blind or deaf-blind. The tactile maps and graphics

William Lloyd Garrison

may be beneficial to other students as well. A tactile graphic is a representation of a graphic (e.g., picture, drawing, diagram, map, etc.) in a form that provides access through touch. It is not an exact copy of the graphic. The section provides basic guidance and links to more comprehensive resources.

Importance of Tactile Maps and Graphics

It is important to provide tactile graphics for young readers (BANA, 2010). It helps students understand and gain information when presented with science and social studies concepts, knowledge, and skills. Science instruction often presents diagrams (e.g., water cycle) and two-dimensional models of living and nonliving things (e.g., model of cell) to teach the related concepts. Social studies instruction often uses maps and timelines to illustrate where and when people existed and events occurred. The following guidance includes information to build upon when creating tactile graphics.

Tactile Graphic Guidance

- 1. Determine need for graphic: When encountering graphics in instructional materials, determine if the graphic is essential to understanding the concept. The Braille Authority of North America (2010) provides a decision tree to help in this determination. It can be accessed online at http://www.brailleauthority.org/tg/web-manual/index.html by selecting "Unit 1 Criteria for Including a Tactile Graphic."
- 2. Consult with the local educator trained to work with students with visual impairments.
- 3. Determine the essential information in the graphic. Read the surrounding information and the caption to determine which information in the graphic to exclude. For example, a map to illustrate location of key countries would not need state lines and capital cities and may not need all of the surrounding countries.
- **4. Reduce unnecessary detail in the graphic.** Identify details that are not necessary for interpreting the information in the graphic. For example, a model of the water cycle may show crevices on the mountains, leaves on a tree, and waves in an ocean. Eliminate unnecessary details, as they are difficult to interpret tactilely.
- **5. Remove frames or image outlines if they serve no purpose.** Ensure that all lines are necessary (e.g., line that indicates a body of water), and remove any that are not.
- **6. Modify the size of the graphic.** Modify the graphic as needed to reduce clutter and allow a blank space between adjacent textures. Additionally, consider the size of the student's hand.
- **7. Use solid shapes as feasible.** When solid shapes do not clearly represent the information, use clear solid lines.
- 8. Systematically teach exploration and interpretation of tactile graphics. Systematic instruction and repetition are important when teaching a student to understand a tactile graphic. Pairing the tactile graphic with a 3-dimensional object may help (e.g., pair a raised line drawing of a pencil, an example of goods, with a pencil).

Specific Graphic Type Guidance

Following is information for specific types of graphics that may support instruction in science and social studies.

Graphic Organizers/Concept Maps

• It is best to present information to compare or make connections in a tactile graphic. A tactile graphic presents the information in a spatial display and aids in comparison better than a list.

Diagrams/Models

- Limit the number of areas, lines, and labels. Having more than five makes interpretation difficult.
- Consider pairing a tactile graphic with a 3-dimensional model.

Timelines

• Present timelines in the same direction every time (i.e., horizontal or vertical).

Maps

- Distinguish water from land using a consistent background texture for the water.
- Align the direction of the compass rose arrows with the lines of longitude and latitude on the map.

Creating Tactile Graphics

Following are some ways to create tactile graphics. Additional information can be found at www.tactilegraphics.org.

Commercial products:

- Capsule paper or swell paper print
- Thermoform

Textured shapes can be made from:

- Sticky back textured papers found at craft stores
- Corrugated cardboard
- Fabric with texture (e.g., corduroy, denim)
- Silk leaves
- Cork
- Felt
- Vinyl
- Mesh tape (used for drywall)
- Sandpaper

Raised lines can be made from:

- Glue (best not to use water-based glue)
- Wax pipe cleaners

Resources

Creating Tactile Graphics created by the High Tech Center Training Unit provides basic principles of tactile graphics, characteristics of good tactile graphics, the planning process, guidelines for designs, and more. http://www.htctu.net/trainings/manuals/alt/Tactile_Graphics.pdf

The Texas School for the Blind and Visually Impaired provided basic principles for Preparing Tactile Graphics, element arrangement on a tactile graphic, resources for preparing quality graphics, etc. http://www.tsbvi.edu/graphics-items/1465-basic-principles-for-preparing-tactile-graphics

Perkins School for the Blind has short videos that explain the importance of tactile graphics and information on spatial relationships and graphic literacy, moving from models to graphics, and strategies for reading tactile graphics. http://www.perkinselearning.org/videos/webcast/teaching-tactile-graphics

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Picture Citations

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https://www.flickr.com/photos/redlinx/2050549332/ CC BY-SA 2.0

Prepared by edCount, LLC in collaboration with Educational Testing Service as part of the TCAP/Alt Science and Social Studies contract.



